

**Notice of Allowability**

Application No.

10/057,449

Examiner

Brenda Pham

Applicant(s)

ABRAHAM ET AL.

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/25/02.
2. ☒ The allowed claim(s) is/are 1, 4, 7-9, renumbering as 1-5, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 3/31/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*Brenda A. Pham*

*10/11/05*

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Martin I. Finston, Reg. No. 31,613 on October 10, 2005.

2. The application has been amended as follows:

Claims 2, 3, 5 and 6 are canceled.

Claim 1 is deleted in entirety and is replaced with the following:

"A method of sending data over a link from a node of a radio access network to a base station of said network for wireless transmission to two or more users, comprising:

obtaining a description of loading on the link;

selecting a respective block size for each said user from a discrete set of two or more available block sizes including a maximum block size that corresponds to a maximum rate of data transmission and at least one reduced block size that corresponds to a reduced rate of data transmission;

mapping the data to blocks of the respectively selected sizes; and

sending the blocks to the base station over the link, wherein:

the maximum block size is selected for at least one user;

a reduced block size is selected for at least one user;

the block sizes are selected with reference to the description of link loading; and  
the number of users that are to receive reduced block sizes is determined with  
reference to the description of link loading.”

Claim 4 is deleted in entirety and is replace it with the following:

“The method of claim 1, wherein the selecting step comprises:  
calculating a sustainable rate  $R_S$  per user;  
determining a reduced rate  $R_{TFj}$  as a function of said sustainable rate  $R_S$ ; and  
setting a number  $N_L$  of users to said reduced rate  $R_{TFj}$ , wherein said number  $N_L$  is  
at least a function of said sustainable rate  $R_S$ , the total number  $N$  of said users, and said  
reduced rate  $R_{TFj}$ .”

Claim 7 is deleted in entirety and is replace it with the following:

“The method of claim 1, wherein the users have bearer rates and the selecting  
step comprises: setting at least one user to a reduced rate within a bearer rate for said  
user.”

Claim 8 is deleted in entirety and is replace it with the following:

“The method of claim 1, wherein the users have priority classes and the selecting  
step comprises: setting at least one user to a reduced rate within a bearer rate and  
priority class for said user.”

Claim 9 is deleted in entirety and is replaced with the following:

"The method of claim 1, wherein the mapping step comprises mapping the data to transport format blocks, each of which is formed from one or more transport blocks, and the selecting step comprises:

selecting a size of a transport format block for at least one user by changing the number of transport blocks used to form said transport format block as a function of the size of transport format blocks of at least one other user."

### **REASONS FOR ALLOWANCE**

3. The following is an examiner's statement of reasons for allowance: the prior art fails to teach or fairly suggests in combination the steps of selecting a respective block size for each said user from a discrete set of two or more available block sizes including a maximum block size that corresponds to a maximum rate of data transmission and at least one reduced block size that corresponds to a reduced rate of data transmission; mapping the data to blocks of the respectively selected sizes; and sending the blocks to the base station over the link, wherein: the maximum block size is selected for at least one user; a reduced block size is selected for at least one user; the block sizes are selected with reference to the description of link loading; and the number of users that are to receive reduced block sizes is determined with reference to the description of link loading.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sugar et al (US 2003/0081628 A1) discloses system and method provided to improve system throughput of a wireless network by adjusting a network access parameter used by devices when accessing the network. One technique is to assign packet lengths to each user in such a way as to ensure that all user transmit packets of equal duration. The packet duration for all users is set based on a maximum packet size at the fastest user data rate in the network. Thus, under this methodology, fixed-duration transmissions are enforced (which implies different packet lengths for different user data rates) instead of fixed-length packets for each user. In practice, the user-rate specific packet size, determined for each user based on the desired fixed-duration, is set as a maximum packet size for that user. However, the user does not always have to transmit at that maximum packet size, which is further benefit average throughput.

Battin et al (US 5,649,299) discloses an apparatus and method for adapting a digital radiotelephone system to increased subscriber traffic.

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Blasbalg (US 4,771,391) discloses a distributed control apparatus and method to maintain the network stability in a packet switching local area network under changing traffic load conditions, by controlling the size of the packets transmitted by each node.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

October 11, 2005

Brenda Pham

*Brenda M. Pham*